

REMARKS

Claims 1-4 are pending in the present application, with claim 1 being the independent claim. Claims 1-4 stand rejected under the judicially created doctrine of double patenting over claims 1-44 of U.S. Patent No. 6,684,246 B1 (parent of this divisional application). Submitted herewith is a Terminal Disclaimer wherein the owner agrees, inter alia, that any patent granted on the instant application shall be enforceable only for and during such period that it and U.S. Patent No. 6,684,246 are commonly owned. Withdrawal of the rejection based on the judicially created doctrine of double patenting is thus respectfully requested.

Also, Applicant respectfully requests that the Examiner acknowledge the citations identified in the Information Disclosure Statement filed November 26, 2003.

Also, out of an abundance of caution pertaining to a potential error discovered in the existing oath, a Supplemental Oath is being filed concurrently with the present Response to cure any such potential error.

Claims 1-4 also stand rejected under 35 U.S.C. § 103 as allegedly obvious over U.S. Patent No. 5,872,973 (Mitchell) in view of U.S. Patent No. 6,690,761 (Lang). The outstanding rejection to the claims based on the art of record is respectfully traversed.

Summary of the Invention

Prior to Applicant's invention, to track access to a server object by client objects, server objects required the addition of code specifically directed to supporting the unique identification of client objects. Similarly, each client object needed to be programmed to receive and provide its unique identification.

Advantageously, with Applicant's invention, existing server objects can be used in such a way that each client object can be individually identified when it invokes a function. Additionally, in accordance with the invention, no modification to existing server class definitions and client class definitions is necessary.

The present invention is directed to methods and systems for tracking access by clients to a server object of a server class. In one embodiment, the client tracking system provides a derived client tracking server class that includes an overriding implementation of a query function of the server class. The overriding implementation instantiates a phantom server object and returns a pointer to the instantiated phantom server object. The phantom server object has functions that correspond to and override the functions of the server class. These overriding functions perform custom processing on a client-by-client basis and forward their invocation to the corresponding functions of the server object. When a client invokes the query function of the client tracking server object, a pointer to a phantom server object is returned. From then on, when that client invokes a function of the phantom server object, custom processing can be performed for that client.

In one embodiment, the client tracking system specifies a phantom manager class for controlling the instantiation and destruction of the phantom server objects. The phantom manager class may provide a create function that, when invoked by the query function of the client tracking server object, instantiates a phantom server object and returns a pointer to the phantom server object. The phantom manager class may also provide a phantom going away function that, when invoked by a destructor of a phantom server object, performs custom processing upon destruction of a phantom server object. A developer who wants to track client accesses to a server class that is already defined may specify a derivation of the server

class, referred to as an “client tracking server class.” The developer may provide an overriding function of the query function as part of the client tracking server class. The developer may also provide an implementation of the create function and the phantom going away function of the phantom manager class that are tailored to the server class. In addition, the developer may provide implementations of the functions of the server class as part of the phantom server object. These implementations of functions of the phantom server object may perform the desired custom processing on a client-by-client basis.

Rejection under 35 U.S.C. § 103

Claims 1-4 stand rejected under 35 U.S.C. § 103 as allegedly obvious over Mitchell in view of Lang.

To prevent the use of hindsight based on the invention to defeat patentability of the invention, in order to be availed of the provisions of 35 U.S.C. § 103, a motivation to combine the references that create the case of obviousness must be shown. In other words, reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed must be shown. There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

Accordingly, withdrawal of the rejection under 35 U.S.C. § 103 is respectfully requested.


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PATENT

CONCLUSION

Applicants believe that the present reply is responsive to each of the points raised by the Examiner in the Office Action, and submit that claims 1-76 of the application are in condition for allowance. Favorable consideration and passage to issue of the application at the Examiner's earliest convenience is earnestly solicited.

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Thomas E. Watson
Registration No. 43,243

Woodcock Washburn LLP
One Liberty Place - 46th Floor
Philadelphia PA 19103
Telephone: (215) 568-3100
Facsimile: (215) 568-3439